

71473 U.S. PTO
04/11/97

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
REQUEST FOR FILE WRAPPER CONTINUING APPLICATION UNDER 37 CFR 1.62

(RULE 62)

For Design or Utility Applications

Page 1 of 4
PATENT
APPLICATION

BOX FWC

Hon. Commissioner of Patents
and Trademarks
Washington, D.C. 20231

Prior Application: 08/522,085

Group Art Unit: 1102

Examiner: Tung, T.

Atty Dkt: 235648 / 41897-US-CON

new M# / Client Ref.

(Our Deposit Account No. 03-3975

(Our Order No. 30954 / 235648

C# / new M#

Date: April 11, 1997

Sir:

This is a RULE 62 Request for filing from
prior copending parent Application No. 08 / 522,085, a
series code ↑ serial no. ↑

[] divisional

[XX] continuation (Exr. NOTE: any election in parent as to species/restriction requirement:

[XX] is carried over with traverse) [] is not carried over)

[] continuation-in-part without new Declaration (Rule 53(d)) [] without fee

[] continuation-in-part (with new Declaration attached hereto)

The parent was filed on August 31, 1995, entitled OXYGEN CONCENTRATION DETECTOR

by the following named inventor(s) who is/are [XX] the same as, [] less than all of (see Item 17),

[] more than (for CIP only), those named in that parent application:

1. Inventor AKIO TANAKA JAPAN
First Middle Initial Family Name Country of Citizenship

Residence (City) Obu (State/Foreign Country) JAPAN

Post Office Address 7-4 Nadaka, Yokone-cho, Obu-city, Aichi-pref., JAPAN

(include Zip Code)

2. Inventor NAOTO MIWA JAPAN
First Middle Initial Family Name Country of Citizenship

Residence (City) Tsushima (State/Foreign Country) JAPAN

Post Office Address 111 Higashi, Kabuto-cho, Tsushima-city, Aichi-pref., JAPAN

(include Zip Code)

3. Inventor TOSHITAKA SAITO JAPAN
First Middle Initial Family Name Country of Citizenship

Residence (City) Toyohashi (State/Foreign Country) JAPAN

Post Office Address 114 Hanadaichiban-cho, Toyohashi-city, Aichi-pref., JAPAN

(include Zip Code)

4. Inventor HIROMI SANO JAPAN
First Middle Initial Family Name Country of Citizenship

Residence (City) Nagoya (State/Foreign Country) JAPAN

Post Office Address 2-281 Chugo, Nakagawa-ku, Nagoya-city, Aichi-pref., JAPAN

(include Zip Code)

5. Inventor KAZUNORI SUZUKI JAPAN
First Middle Initial Family Name Country of Citizenship

Residence (City) Nagoya (State/Foreign Country) JAPAN

Post Office Address 40 Nakanokiri, Shimonoishiki-cho, Nakagawa-ku, Nagoya-city, Aichi-pref., JAPAN

(include Zip Code)

6. Inventor MASAYA FUJIMOTO JAPAN
First Middle Initial Family Name Country of Citizenship

Residence (City) Kariya (State/Foreign Country) JAPAN

Post Office Address 39-1 Shimokasu, Hitotsugi-cho, Kariya-city, Aichi-pref., JAPAN

(include Zip Code)

NOTE: FOR ADDITIONAL INVENTORS, check box [] and attach sheet (CDC-110A) with same information for each inventor starting with inventor No. 6 and number new page 1A.

- CDC-110 12/96

11. **Requirement of Rule 62:** It is understood that secrecy under 35 U.S.C. 122 is hereby waived to the extent that if information or access is available to any one of the applications in the file wrapper of a 37 CFR 1.62 application, be it either this application or a prior application in the same file wrapper, the Patent and Trademark Office may provide similar information or access to all the other applications in the same file wrapper.
12. Petition to extend the life of the above prior application to at least the date hereof

NOTE: (One box) ☒ [**XX**] is being concurrently filed in that prior application (Use Form CDC-111).
 (must be) ☐ [] was previously filed in that prior application (Check length of prior extension).
 (X'd) ☐ [] is not necessary for copendency (double check before X'ing this box).

13. ☒ [**XX**] Please enter the amendment previously filed on FEBRUARY 11, 1997
 but unentered in the above prior application.

14. ☐ [] Attached: _____ sheet(s) per set of drawing of Fig(s) _____:
☐ [] 1 set informal; ☐ [] formal of size: ☐ [] A4 ☐ [] 11"

15. ☐ [] **PRELIMINARY AMENDMENT to be entered before fee calculation** (Do not make amendments here except cancellation of whole claims or multiple dependencies for purpose of reducing the filing fee per MPEP §§ 506 and 607; do not cancel all claims.):

16. ☐ [] Attached is a Rule 103(a) Petition to Suspend Action

17. Petition is hereby made requesting deletion as inventor(s) of the following who is/are not inventor(s) of the invention being claimed in this Rule 62 application:

1. _____ 2. _____
 3. _____ 4. _____

18. ☐ [] This Rule 62 application is a continuation-in-part which discloses and claims additional matter and the amendments in attached Amendment are to be considered an integral part of the CIP ab initio.

a. ☐ [] New Declaration is attached.

b. ☐ [] This application is also filed under Rule 53(d) (without a Declaration) and hence filing fee is not enclosed.

FILING FEE

THE FOLLOWING FILING FEE IS BASED ON THE CLAIMS
EXISTING IN THE PRIOR APPLICATION AS AMENDED AT 13 AND 15 ABOVE

	see box 10 re:	Large/Small Entity	Fee Code
19. Basic filing fee -----	Design Appln. --	\$320/\$160	\$ _____ (106/206)
20. Basic filing fee -----	<u>Not</u> Design Appln. --	\$770/\$385	\$ <u>770.00</u> (101/201)
21. Total Effective Claims	<u>17</u> minus 20 =	* <u>0</u> x \$22/\$11 =	+ _____ (108/208)
22. Independent Claims	<u>5</u> minus 3 =	* <u>2</u> x \$80/\$40 =	+ <u>160.00</u> (102/202)

* If answer is zero or less, enter "0"

23. If any proper (ignore improper) multiple dependent claim is present, ----- add \$260/\$130 + _____ (104/204)

24. **TOTAL FILING FEE =** \$ 930.00

25. If "assignment" box 5 above is X'd, ----- add recording fee (\$40.00) + _____ (581)

26. If "petition" box 16 above is X'd, ----- add petition fee (\$130.00) + _____ (122)

27. **FEE ATTACHED =** \$ 930.00
 (carry forward to line 36)

28. ☒ Preliminary Amendment attached (to be entered after assigning Appln. No.).
(Do NOT X box 28 or 29 for CIP Amendment. See box 18)
29. ☐ The following PRELIMINARY AMENDMENT is to be entered after assigning Appln. No.:

30. ☒ ATTACHED: **DECLARATION**

31. **ADDITIONAL FEE CALCULATION FOR
PRELIMINARY AMENDMENT
PER BOXES 28/29**

Claims remaining after amendment	Highest number previously paid for	Present Extra	Additional Fee	
				<u>Large/Small Entity</u> <u>Fee Code</u>
32. Total Effective Claims	_____ minus ** _____	= * _____ x \$22/\$11 = \$ _____		(10228)
33. Independent Claims	_____ minus *** _____	= * _____ x \$80/\$40 = + _____		(10222)
34. If amendment enters proper multiple dependent claim(s) into this application for the first time, ----- add \$260/130 (per application)			+ _____	(10424)
35.		ADDITIONAL FEE	\$ -0-	
36.		<u>plus FEE from item 27 on page 3</u>	+ 930.00	
37.		<u>TOTAL FEE ATTACHED</u>	\$ 930.00	

38. *If the entry in the first space is less than entry in the middle space, the "Present Extra" result is "0".

39. **If the "Highest number previously paid for" (see item 21 above) is less than 20, write "20" in this space.

40. ***If the "Highest number previously paid for" (see item 22 above) is less than 3, write "3" in this space.

41. **CHARGE STATEMENT:** The Commissioner is hereby authorized to charge any fee specifically authorized hereafter, or any missing or insufficient fee(s) filed, or asserted to be filed, or which should have been filed herewith or concerning any paper filed hereafter, and which may be required under Rules 16-18 (missing or insufficient fee only) now or hereafter relative to this application and the resulting Official document under Rule 20, or credit any overpayment, to our Account/Order Nos. shown in the heading hereof for which purpose a duplicate copy of this sheet is attached. **This CHARGE STATEMENT does not authorize charge of the issue fee until/unless an issue fee transmittal form is filed.**

**Cushman Darby & Cushman
Intellectual Property Group of
Pillsbury Madison & Sutro LLP**

1100 New York Avenue, N.W.

Ninth Floor, East Tower By Atty: Michelle N. Lester

Washington, D.C. 20005-3918

Tel: (202) 861-3000

Atty/Sec:MNL:sj

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NOTE: No: 1: File this Request in duplicate with 2 postcard receipts (CDC-103) & attachments.

NOTE: No: 2: Is extension in parent necessary for copendency? **DOUBLE CHECK** Item 12 above.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: TANAKA et al

Examiner: T. Tung

FWC of Serial No.: 08/522,085

Art Unit: 1102

Filed: April 11, 1997

Title: OXYGEN CONCENTRATION DETECTOR

* * * * *

April 11, 1997

PRELIMINARY AMENDMENT

Honorable Commissioner of
Patents & Trademarks
Washington, D. C. 20231

Sir:

Kindly preliminarily amend the above-referenced continuation application as follows:

IN THE CLAIMS

Kindly amend the claims as follows:

12. (Amended) An oxygen concentration detector comprising:
a sensor element including a solid electrolyte and external and internal electrodes provided on external and internal surfaces thereof, respectively;
a heater provided adjacent to said internal surface of said sensor element;
wherein said internal electrode consists of a material having a [high emissivity] porosity being equal to or more than 0.5, and said external electrode consists of a material having an emissivity lower than the emissivity of said internal electrode; and

wherein a clearance is formed between the heater and the internal electrode,
the clearance being 0.1 mm or more.

16. (Amended) An oxygen concentration detector comprising:
a sensor element including a solid electrolyte and external and internal
electrodes provided on external and internal surfaces thereof, respectively;
a heater provided adjacent to said internal surface of said sensor element;
wherein at least said surface of said internal electrode consists of a material
having a [high emissivity] porosity being equal to or more than 0.5, and a layer consisting of
a material having an emissivity lower than the emissivity of said internal electrode is
provided as an outermost layer of said sensor element; and

wherein a clearance is formed between the heater and the internal electrode,
the clearance being 0.1 mm or more.

REMARKS

Early and favorable action are respectfully requested.

Respectfully submitted,

CUSHMAN DARBY & CUSHMAN
Intellectual Property Group of
Pillsbury Madison & Suto LLP

By


Michelle N. Lester

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re PATENT APPLICATION of

TANAKA et al

Appln. No. 08/522,085

Group Art Unit 1102

Filed: August 31, 1995

Examiner: T. Tung

Title: OXYGEN CONCENTRATION DETECTOR

DECLARATION

Hon. Commissioner of Patents
and Trademarks
Washington, D.C. 20231

Sir:

Now here come Akio Tanaka, Naoto Miwa, Toshitaka Saito, Hiromi Sano,
Kazunori Suzuki and Masaya Fujimoto who declare and say that we are the
inventors of the subject matter disclosed and claimed in U.S. Patent Application No.
08/522,085, filed August 31, 1995 and titled OXYGEN CONCENTRATION
DETECTOR; that our original application for a United States patent incorporated by
reference our Japanese Patent Application No. 6-234387, filed September 1, 1994,
and our Japanese Patent Application No. 6-340136, filed December 28, 1994 by the
statement incorporated on page 1 of that application; and that we have reviewed the
Amendment Under Rule 1.116, filed February 11, 1997, which amended the
disclosure of our '085 application to include material incorporated by reference. The
amendatory material consists of the same material incorporated by reference in our
'085 application as filed.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Akio Tanaka
Akio Tanaka

April 2, 1997
Date

Naoto Miwa
Naoto Miwa

April 8, 1997
Date

Toshitaka Saito
Toshitaka Saito

April 8, 1997
Date

Hiromi Sano
Hiromi Sano

April 2, 1997
Date

Kazunori Suzuki
Kazunori Suzuki

April 8, 1997
Date

Masaya Fujimoto
Masaya Fujimoto

April 2, 1997
Date

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